Amendments to the Specification:

Please replace paragraph [0049] with the following amended paragraph:

[0049] The flat topped TIR lens 30 consists of TIR facets 32 on either side of a refractive central lens 33. At the rear of the flat surface TIR lens 30 is a source 34 and planar reflector 36. Rim angle α [[35]] is measured at source 34 and ranges from 0° on the axis 35 to 90° where the lens meets planar reflector 36. Although total internal reflection allows greater rim angles, especially with materials of higher refractive index (e.g. polycarbonate 1.59), lens thickness is at least at the 90° value.

Please replace paragraph [0055] with the following amended paragraph:

[0055] The desired output-beam deflection is indicated by angle β 56 which is deflected from surface normal vector N on the flat exterior surface 51. The left half-lens 53 is defined by its output beam crossing the central axis 52, while the right half-lens 54 deflects light away from the central axis 52. The left-half-lens 53 consists of left-half linear TIR facets 46 to 47 and left-half refractive facets 48 and 49, spanning the full range of source angle α= 90° [[t o]] to 0° (the latter is parallel to surface normal vector N).

Please replace paragraph number [0064] with the following amended paragraph:

[0064] The asymmetric linear TIR lens 80 is comprised of the left half-lens [[83]] 82 and the right half-lens 83, with TIR facets 89 on either side of the central lens 84 and the focal point 81, where a light source means such as an LED is situated. Flanking

the left half-lens 82 is the left lateral surface 85 and flanking the right half-lens 83 is the right lateral surface 86. The lateral surfaces 85 and 86 are tilted at the Snell's law angle of $\sin^{-1}(\sin 20°)/1.5=13.2°$, by which top surface 98 produces an output beam angle of 20°.

Please replace paragraph number [0075] with the following amended paragraph:

[0075] The maximum rim angle of a TIR lens is a function of the relative position of its outermost facet. The ray fan 109 is generated by a source placed at the focal point 102 of FIG. 10. The uppermost ray 110 has an angle 120° relative to the system axis, 101 and is totally internally reflected at the top of TIR face 108. Lowest ray 111 has an angle 125°, and enters the facet 104 with an external angle [[E=125° 90° + Q]] E=125° - 90° + Q, where Q is the inward tilt angle of the Cartesian-oval entry face. This external angle E is refracted to internal angle D 113, followed by total internal reflection at TIR face 108, at incidence angle C 112 that must always be larger than the critical angle, $\sin^{-1}(1/n)$, for refractive index n. Typically, the maximum practical deflection E-D is about 30°, while the deflection by the TIR face is much larger, 180° - 2C. Ray 111 continues upward with inward angle S 117 (here 8°) from the system axis 101. Its originally downward course has been turned 132°, and it will be deflected even further when it exits the lens.

Please replace paragraph number [0086] with the following amended paragraph:

[0086] The optical action of lens 150 is the same as for lens 80 in Figure [[8a]] 8. Rays from the source will propagate out to the lens facets, to be redirected into a slanted beam that is refracted by the top surface into a greater external slant.